

EPAB

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TITLE: Fibre-optic bus system.

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INVENTOR-INFORMATION:

NAME

COUNTRY

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N/A

EUR-CL (EPC): H04B010/158; H04L025/06 ABSTRACT:

1. Fibre-optic bus system in which the information signal to be transmitted is converted by means of an electro-optical transmitter into a light signal and the latter is coupled into an optical waveguide and in which the light signal transmitted via optical waveguides is converted by an opto-electric receiver into a useful electric signal and from this the information signal is recovered, particularly for multi-processor arrangements with a local optical bus with star coupler, with a transmitter, the light power of which, which is coupled into the optical waveguide and depends on the information signal, can be changed in digital steps, with a receiver constructed from direct-current-coupled amplifiers without gain control which exhibits an input stage (V) for generating the useful signal, a first comparator stage (15) for generating the information signal from the useful signal and a second comparator stage, not drawn, which is supplied with a reference voltage which can be changed in digital steps and which samples the level of the useful signal and emits a collision signal if the useful signal exceeds the reference voltage, a sampling stage (A) being provided between the input stage (V) and the comparator stages (K) which generates from the useful signal the reference signal for a mid-level sampling of the useful signal for the first comparator stage, characterized in that two rectifier arrangements (7/9, 8/10) are provided in the sampling stage (A), one of these rectifier arrangements (7/9) rectifying positive levels and the other one of these rectifier arrangements (8/10) rectifying negative levels of the input signal, that each of these rectifier arrangements (7/9, 8/10) is in each case connected to an associated charging capacitor (11 and 12, respectively), that in each case one of the coatings of the charging capacitors (11, 12) is permanently connected to a reference potential (B), preferably earth, of the input signal, that the other coatings in each case are connected to one another via an impedance (13/14) and that a comparator arrangement (K) is connected to a branch of the impedance (13/14), on the one hand, and to a signal input (E) of the sampling stage (A) on the other hand, so that the comparator arrangement (K) can compare the input signal with a reference potential derived from the impedance (13/14).

INT-CL (IPC): H04B009/00; H04L025/30

ABSTRACT:

1. Fibre-optic bus system in which the information signal to be transmitted is converted by means of an electro-optical transmitter into a light signal and the latter is coupled into an optical waveguide and in which the light signal transmitted via optical waveguides is converted by an opto-electric receiver into a useful electric signal and from this the information signal is recovered, particularly for multi-processor arrangements with a local optical bus with star coupler, with a transmitter, the light power of which, which is coupled into the optical waveguide and depends on the information signal, can be changed in digital steps, with a receiver constructed from direct-current-coupled amplifiers without gain control which exhibits an input stage (V) for generating the useful signal, a first comparator stage (15) for generating the information signal from the useful signal and a second comparator stage, not drawn, which is supplied with a reference voltage which can be changed in digital steps and which samples the level of the useful signal and emits a collision signal if the useful signal exceeds the reference voltage, a sampling stage (A) being provided between the input stage (V) and the comparator stages (K) which generates from the useful signal the reference signal for a mid-level sampling of the useful signal for the first comparator stage, characterized in that two rectifier arrangements (7/9, 8/10) are provided in the sampling stage (A), one of these rectifier arrangements (7/9) rectifying positive levels and the other one of these rectifier arrangements (8/10) rectifying negative levels of the input signal, that each of these rectifier arrangements (7/9, 8/10) is in each case connected to an associated charging capacitor (11 and 12, respectively), that in each case one of the coatings of the charging capacitors (11, 12) is permanently connected to a reference potential (B), preferably earth, of the input signal, that the other coatings in each case are connected to one another via an impedance (13/14) and that a comparator arrangement (K) is connected to a branch of the impedance (13/14), on the one hand, and to a signal input (E') of the sampling stage (A) on the other hand, so that the comparator arrangement (K) can compare the input signal with a reference potential derived from the impedance (13/14).